Syllabus

BONELLI CATTLE CO. ET AL. *v.* ARIZONA ET AL.

CERTIORARI TO THE SUPREME COURT OF ARIZONA

No. 72–397. Argued October 15, 1973—Decided December 17, 1973

Certain land abutting the east bank of the Colorado River was conveyed in 1910 by federal patent to a railroad company. Upon admission to the Union in 1912 Arizona succeeded the Federal Government to title to the bed of the Colorado River. The river's gradual eastward movement submerged the subject land by erosion so that title was mechanically transferred to the State as part of the riverbed. In 1955 petitioner cattle company acquired title to the original railroad grant, most of which by that time was covered by water. In 1959 the subject land was abandoned by the Colorado as a result of a federal rechanneling project. Petitioner cattle company filed this action to quiet title and prevailed in the lower courts, but the Arizona Supreme Court reversed, holding that under the equal-footing doctrine and the Submerged Lands Act, Arizona held title to the beds of all navigable waters within its borders and thus to the subject land as a result of the river's gradual eastward movement. *Held:*

1. Ownership of the subject land is governed by federal law. The issue here is not what rights the State has accorded private owners in lands that the State holds as sovereign but how far the State's sovereign right extends under the equal-footing doctrine and the federal Submerged Lands Act, *i. e.*, whether the State retains title to lands formerly beneath the Colorado or whether title thereto is defeasible by withdrawal of those waters. Pp. 317–321.

2. The equal-footing doctrine does not support the State's claim, since when the water receded from the disputed land, there was no longer a public purpose to be served by the State, as sovereign, holding title thereto. Pp. 321–324.

3. Nor does the Submerged Lands Act, which did not abrogate the federal law of accretion, support the State's claim, since that Act does not extend to the States any interest in the beds of navigable rivers beyond those afforded by the equal-footing doctrine. Pp. 324–325.

4. Title to the subject land, under the applicable federal common law, is vested in petitioner as riparian landowner and not in the State as owner of the riverbed. Pp. 325–332.

(a) Analysis of the interests of the State and petitioner, in

light of the rationales for the federal common-law doctrines of accretion and avulsion, compels the conclusion that, as between the State, as owner of the riverbed, and petitioner, as riparian owner, the surfacing of the subject land should be treated as an accretion; hence title to the disputed land should be vested in petitioner. Pp. 325–330.

(b) The doctrine of avulsion (whereby an avulsive change caused by a stream suddenly and perceptively abandoning its old channel does not affect title and the boundary established by the former river stream remains at that line, even if the result is to cut off a landowner's riparian rights) does not apply here because of the limited interests of the State in the subject property. Pp. 328–329.

107 Ariz. 465, 489 P. 2d 699, and 108 Ariz. 258, 495 P. 2d 1312, reversed and remanded.

MARSHALL, J., wrote the opinion of the Court, in which BURGER, C. J., and DOUGLAS, BRENNAN, WHITE, BLACKMUN, and POWELL, JJ., joined. STEWART, J., filed a dissenting opinion, *post*, p. 332. REHNQUIST, J., took no part in the consideration or decision of the case.

Elmer C. Coker argued the cause for petitioners. With him on the briefs was *Leonard C. Langford.*

Dale R. Shumway argued the cause for respondents. With him on the brief was *Gary K. Nelson,* Attorney General of Arizona.*

Opinion of the Court by MR. JUSTICE MARSHALL, announced by MR. JUSTICE BRENNAN.

The question for decision is whether title to land abandoned by the stream of the Colorado River as a

*Briefs of *amici curiae* urging affirmance were filed by *Solicitor General Bork* for the United States, and by *Evelle J. Younger,* Attorney General, *Jay L. Slavelson,* Assistant Attorney General, and *Warren J. Abbott* and *Jerold A. Krieger,* Deputy Attorneys General, for the State of California.

Briefs of *amici curiae* were filed by *Philip E. von Ammon* for the Santa Fe Pacific Railroad Co., and by *David H. Getches* for the Cocopah Tribe of Indians.

result of a federal rechanneling project vests in the State of Arizona, as owner of the beds under navigable streams within its borders, or in petitioner cattle company, as the owner of land riparian to the river at the time of the rechanneling.

The circumstances that give rise to this case are as follows. In 1910, the subject land was conveyed by federal patent, as part of a larger parcel, to the Santa Fe Pacific Railroad Co. A survey conducted in 1905 and 1906, and approved by the Surveyor General of the United States in 1906, indicates that as of the date of the patent, the Santa Fe parcel abutted the east bank of the Colorado River.[1] Upon admission to the Union in 1912, Arizona succeeded the Federal Government to title to the bed of the Colorado River. The exact location of the river in 1912 in relation to the subject property is unclear from the record, but it is generally agreed that between 1903 and 1959 (when it was rechanneled) the river moved gradually eastward, eroding its east bank and depositing alluvion on its west bank, resulting in the submergence by erosion of the subject land. As the river crept eastward, the boundary between

[1] The federal patent to the Santa Fe Pacific Railroad conveyed a parcel of land in township 19 North of Range 22 West, described as follows:

"The lots one, two, three, four, five and six, the south half of the northeast quarter, the south half of the northwest quarter, the northeast quarter of the southwest quarter, and the southeast quarter of section three, containing five hundred eighty-nine and forty hundredths acres."

The map of the area, approved by the Surveyor General, indicates that, as of 1906, lots 5 and 6 of the Santa Fe parcel abutted the Colorado River. Petitioner Bonelli Cattle Co. was deeded a parcel of land constituting roughly the eastern half of the original Santa Fe grant. The Bonelli deed described the subject property as the "E[ast] ½ [of] Section 3, excepting Lot 2 thereof."

upland owners and the state-owned riverbed moved mechanically with it, transferring title to the lands which became part of the riverbed to the State. The operation of the Hoover Dam, begun in 1938, reduced the flow of water in the Colorado River and substantially decreased its annual flood stage high-water mark. Nonetheless, by 1955, when the Bonelli Cattle Co. acquired title to the subject portion of the original Santa Fe grant, all but 60 acres in the southeast corner of its parcel was covered by water. In 1959, a federal Bureau of Reclamation Project deepened and rechanneled the Colorado River in the area of the subject land, thereby confining the stream of the river to a substantially reduced portion of the Bonelli property.[2]

In 1962, the Bonelli Cattle Co. filed the instant action to quiet title to the land from which the river had withdrawn as a result of the federal rechanneling project. The state trial court granted judgment for Bonelli and against the State of Arizona. The Arizona Court of Appeals, the State's intermediate appellate court, affirmed, upholding Bonelli's contention that if the changes in the river were accretive, the surfaced land belonged to Bonelli, as a riparian owner, and if the change were avulsive, the land nonetheless belonged to Bonelli under the doctrine of re-emergence.[3]

The Arizona Supreme Court reversed,[4] holding that under the equal-footing doctrine and the Submerged Lands Act, Arizona holds title to the beds of all navigable

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[2] The rechannelization also surfaced a small usable pocket of land on the west bank of the Colorado River which was part of the Bonelli parcel. This land is not in Arizona by virtue of the Boundary Compact between Arizona and Nevada, approved by Congress, Pub. L. 87–50, 75 Stat. 93, and hence is not involved in the present controversy.

[3] 11 Ariz. App. 412, 464 P. 2d 999 (1970).

[4] 107 Ariz. 465, 489 P. 2d 699 (1971).

waters within its borders and thus to the subject land as a result of the gradual eastward movement of the river. The Arizona Supreme Court found that, because the federal rechannelization project was an "engineering relocation of the waters of the river by artificial means," it was, under state law, an avulsive change, which did not divest the State of its title to the exposed land which had formerly been part of the riverbed. The court denied a rehearing and, in a supplemental opinion, clarified the extent of the dry land owned by the State.[5] It held that the high-water mark of the river, to which the State's ownership extends, was fixed by the natural state of the river as it existed in 1938, before the operation of Hoover Dam.[6] We granted certiorari, 410 U. S. 908 (1973). We hold that the ownership of the subject land is governed by federal law, and that the land surfaced by the narrowing of the river channel belongs, not to the State as owner of the riverbed, but to Bonelli as riparian owner. We need not, therefore, reach the question of whether the Arizona Supreme Court properly determined the average high-water mark of the river.

I

The first issue we must decide is whether state or federal law governs this controversy. The State of Arizona claims title to the subject land by virtue of the equal-footing doctrine[7] and the Submerged Lands Act,[8] the basic principles of which are as follows. When the

[5] 108 Ariz. 258, 495 P. 2d 1312 (1972).

[6] Before the operation of Hoover Dam, the river's annual spring floods covered substantially more of the adjacent land than at any time thereafter. It is to the high-water mark of the river at this annual flood stage that the State of Arizona claims title.

[7] See Joint Res. No. 8, To Admit the Territories of New Mexico and Arizona as States into the Union on an equal footing with the original States, 37 Stat. 39.

[8] 67 Stat. 29, 43 U. S. C. § 1301 *et seq.*

Original Colonies ratified the Constitution, they succeeded to the Crown's title and interest in the beds of navigable waters within their respective borders. As new States were forged out of the federal territories after the formation of the Union, they were "admitted [with] the same rights, sovereignty and jurisdiction . . . as the original States possess within their respective borders." *Mumford* v. *Wardwell*, 6 Wall. 423, 436 (1867). Accordingly, title to lands beneath navigable waters passed from the Federal Government to the new States, upon their admission to the Union, under the equal-footing doctrine. See, *e. g.*, *Pollard's Lessee* v. *Hagan*, 3 How. 212 (1845); *Shively* v. *Bowlby*, 152 U. S. 1 (1894); *Weber* v. *Board of Harbor Comm'rs*, 18 Wall. 57, 65–66 (1873).

In order for the States to guarantee full public enjoyment of their navigable watercourses,[9] it has been held that their title to the bed of a navigable river mechanically follows the river's gradual changes in course. See *Oklahoma* v. *Texas*, 268 U. S. 252 (1925). Thus, where portions of a riparian owner's land are encroached upon by a navigable stream, under federal law, the State succeeds to title in the bed of the river to its new high-water mark.

The Submerged Lands Act of 1953 did not disturb these doctrines or their inherent limitations. The Act merely confirmed the States' pre-existing rights in the beds of the navigable waterways within their boundaries by, in effect, quitclaiming all federal claims thereto. And, consonant with the above-described common-law doctrine concerning title to the bed of a river that has shifted course, the Submerged Lands Act quitclaims all federal rights to title to lands beneath the navigable streams, as "hereafter modified by accretion, erosion, and reliction." 43 U. S. C. § 1301 (a)(1).

[9] See discussion, *infra*, at 321–324.

The State of Arizona asserts title to the subject land on the basis of the following application of these principles. When Arizona achieved statehood in 1912, it assumed title to the land beneath the stream of the Colorado River, by virtue of the equal-footing doctrine.[10] It subsequently acquired title to the subject land when it was submerged by the river's eastward movement. The State asserts that once having acquired title, it was not divested of its proprietary interest in the land by the subsequent withdrawal of the water due to the rechanneling of the river.

Having concluded that title to the subject land was thus vested in the State as a matter of settled federal law, the state courts determined that local law controlled whether petitioner, as a riparian owner, had any interest in the land thereafter. As the Court said in *Arkansas* v. *Tennessee*, 246 U. S. 158, 176 (1918), "[I]t is for the States to establish for themselves such rules of property as they deem expedient with respect to the navigable waters within their borders and the riparian lands adjacent to them. . . ."

We continue to adhere to the principle that it is left to the States to determine the rights of riparian owners in the beds of navigable streams which, under federal law, belong to the State. But this doctrine does not require that state law govern the instant controversy. The issue before us is not what rights the State has accorded private owners in lands which the State holds as sovereign; but, rather, how far the State's sovereign right extends under the equal-footing doctrine and the Submerged Lands Act—whether the State retains title

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[10] The Colorado River has been determined to be a navigable waterway, *Arizona* v. *California*, 283 U. S. 423 (1931), and, once found to be navigable, it remains so. *United States* v. *Appalachian Electric Power Co.*, 311 U. S. 377, 408 (1940).

to the lands formerly beneath the stream of the Colorado River or whether that title is defeasible by the withdrawal of those waters. As this Court observed in *Borax, Ltd.* v. *Los Angeles*, 296 U. S. 10, 22 (1935): "The question as to the extent of this federal grant, that is, as to the limit of the land conveyed, . . . is necessarily a federal question. . . . [I]t involves the ascertainment of the essential basis of a right asserted under federal law."

Arkansas v. *Tennessee*, *supra*, and the cases cited therein are not to the contrary. In *Arkansas* v. *Tennessee*, for example, we held that federal law governed the question of how far into the river channel a State held title. Only then did this Court turn to state law to determine whether riparian owners had been accorded any rights in that land. But even the State's disposition of its submerged land *vis-à-vis* private owners was to be "in each case limited by the interstate boundary," a matter determined by federal law. 246 U. S., at 176. Similarly, in *Shively* v. *Bowlby*, 152 U. S. 1 (1894), the Court held that under settled federal law, the tidelands there at issue belonged to the State in its sovereign capacity; hence whether the State had accorded riparian owners any interests in the tidelands properly remained a matter of local law; "if [the States] choose to resign to the riparian proprietor rights which properly belong to them in their sovereign capacity, it is not for others to raise objections." *Id.*, at 43. In *Barney* v. *Keokuk*, 94 U. S. 324, 338 (1877), the Court left it to the States to decide whether to accord title to the land beneath nontidal navigable waters to riparian owners after recognizing that under federal law such lands belong to the States. See also *Scott* v. *Lattig*, 227 U. S. 229, 242 (1913).

The present case, however, does not involve a question of the disposition of lands, the title to which is vested in the State as a matter of settled federal law. The very question to be decided is the nature and extent of

the title to the bed of a navigable stream held by the State under the equal-footing doctrine and the Submerged Lands Act. In this case, the question of title as between the State and a private landowner necessarily depends on a construction of a "right asserted under federal law." [11]

II

We cannot accept the State's argument that the equal-footing doctrine supports its claim to the disputed land. Historically, title to the beds beneath navigable waters is held by the sovereign, *Barney* v. *Keokuk*, *supra*, at 338, as a public trust for the protection of navigation and related purposes.

> "[T]itle to the . . . lands under water . . . enures to the State within which they are situated . . . . Such title . . . [is] held in trust for the public purposes of

[11] Petitioner Bonelli and the Solicitor General of the United States, as *amicus curiae*, assert that this case should be governed by federal law for a different reason. In *Hughes* v. *Washington*, 389 U. S. 290 (1967), this Court held that where an upland property owner traced its title to a pre-statehood federal patent, the owner's right to accretions is a question of federal law. *Id.*, at 292. We are here again concerned with the right to accretions conveyed by a pre-statehood federal patent, but it is unclear whether, at the time of Santa Fe Pacific's patent, the portion of the land which ultimately became Bonelli's parcel, was actually riparian. Bonelli argues that its remote grantor, the Santa Fe Pacific Railroad, was given a patent by the United States which afforded it the right to riparian accretions as governed by federal law, and that it was expected that the river might wander within the parcel of land making parts thereof riparian which were not so at the time of the patent. Petitioner argues that its predecessor was therefore entitled to pass onto his successors all the rights he had in the property—including his riparian rights. We need not, however, decide whether *Hughes* compels the application of federal law to the controversy before us, because the State's claim in this case is premised on a construction of the federal equal-footing doctrine and the congressionally enacted Submerged Lands Act.

navigation and fishery." *Hardin* v. *Jordan*, 140 U. S. 371, 381 (1891).

See *United States* v. *Kansas City Life Ins. Co.*, 339 U. S. 799, 808 (1950). As this Court observed in an earlier federal water law case:

> "Such waters . . . are incapable of ordinary and private occupation, cultivation and improvement; and their natural and primary uses are public in their nature, for highways of navigation and commerce, domestic and foreign, and for the purpose of fishing . . . ." *Shively* v. *Bowlby*, *supra*, at 11.

The State's title is to the "[river]bed as a bed," [12] and the State of Arizona will continue to hold title to the bed beneath the Colorado River to its present high-water mark. But the exposed land involved here is no longer, as described in *Shively* "incapable of ordinary and private occupation . . . [whose] primary uses are public in their nature, for highways of navigation . . . ." [13] The equal-footing doctrine was never intended to provide a State with a windfall of thousands of acres of dry land exposed when the main thread of a navigable stream is changed.[14] It would be at odds with the fundamental

[12] *State* v. *Gill*, 259 Ala. 177, 183, 66 So. 2d 141, 145 (1953). For a perceptive discussion of the historical antecedents for the sovereign's rights in the beds of navigable waterways and of the State's modern interests in those lands, see Lundquist, Artificial Additions to Riparian Land: Extending the Doctrine of Accretion, 14 Ariz. L. Rev. 315 (1972).

[13] 152 U. S., at 11.

[14] The Supreme Court of Arizona relied on this Court's decisions in *Goodtitle* v. *Kibbe*, 9 How. 471 (1850), and *Pollard's Lessee* v. *Hagan*, 3 How. 212 (1845), for the proposition that a federal rechanneling project could not diminish the extent of the State's landholdings. Those decisions involved post-statehood federal patents of land covered by navigable waters at the time of statehood. This Court held only that since title to lands beneath navigable waters was vested in

purpose of the original grant to the States to afford a State title to land from which a navigable stream had receded unless the land was exposed as part of a navigational or related public project of which it was a necessary and integral part or unless, of course, the artificial accretion was somehow caused by the upland owner himself. There has been no showing that the rechannelization project was undertaken to give the State title to the subject lands for the protection of navigation or related public goals.[15] Indeed, the State of Arizona did not participate in the rechannelization of the Colorado River, although it had implicitly assented to the project.[16]

The advance of the Colorado's waters divested the title of the upland owners in favor of the State in order to guarantee full public enjoyment of the watercourse. But, when the water receded from the land, there was no longer a public benefit to be protected; consequently,

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Alabama at statehood, the Federal Government did not thereafter own the subject lands, hence its attempted conveyance was void. The Court did not intimate that the operation of federal law could not diminish the State's title to lands formerly beneath navigable waters.

[15] For a discussion of the navigational-purpose limitation on the State's interest in the lands beneath its waterways, see *United States* v. *River Rouge Co.*, 269 U. S. 411, 419 (1926); *Colberg, Inc.* v. *State*, 67 Cal. 2d 408, 416, 432 P. 2d 3, 8–9 (1967), cert. denied, 390 U. S. 949 (1968); *Michaelson* v. *Silver Beach Assn.*, 342 Mass. 251, 173 N. E. 2d 273 (1961). The extent of the State's interests should not be narrowly construed because it is denominated a navigational purpose. See *Zabel* v. *Tabb*, 430 F. 2d 199 (CA5 1970), cert. denied, 401 U. S. 910 (1971) (recognizing conservation as a proper interest). Since the State asserts no public need for ownership of the subject land we do not attempt to define the exact parameters of the permissible public purposes.

[16] In contrast, this Court's decision in *Marine R. & Coal Co.* v. *United States*, 257 U. S. 47 (1921), involved a determination of federal rights in land created when the Federal Government itself filled in tidelands belonging to it under a series of interstate compacts.

the State, as sovereign, has no need for title. That the cause of the recession was artificial, or that the rate was perceptible, should be of no effect.

Nor does the Submerged Lands Act provide a basis for the State's claim to the subject lands. The Arizona Supreme Court incorrectly construed this Act as a grant by Congress to the States of lands "*formerly* . . . beneath navigable waters." [17] The Act did not abrogate the federal law of accretion, but defined lands beneath navigable waters as being those covered by streams as "hereafter modified by accretion, erosion, and reliction." [18] Contrary to the implication raised by the Arizona Supreme Court, the Act creates no new rights for the States in the beds of their inland waterways. The Act is not a grant of title to land but only a quitclaim of federal proprietary rights in the beds of navigable waterways.[19] The Act specifically excepts from its scope lands lawfully conveyed or patented by the United States.[20] Since the Act does not extend to the States any interest beyond those afforded by the equal-

[17] 108 Ariz. 258, 259, 495 P. 2d 1312, 1313 (1972) (emphasis added).

[18] 43 U. S. C. § 1301 (a) (1).

[19] The legislative history of the Act indicates that it was intended to be merely confirmatory of the State's existing rights in the beds of their navigable waterways. S. Rep. No. 133, 83d Cong., 1st Sess., pt. 1, pp. 6–8 (1953), *People* v. *Hecker*, 179 Cal. App. 2d 823, 4 Cal. Rptr. 334 (1960). See generally 1953 U. S. Code Cong. & Ad. News 1395–1640. Congress was concerned about this Court's decision in *United States* v. *California*, 332 U. S. 19 (1947), which held that the Federal Government had a "paramount interest" in the marginal sea-lands "outside of inland waters, but within territorial limits"—and that the States had no title in those lands. See H. R. Rep. No. 1778, 80th Cong., 2d Sess., 5 (1948). That concern is irrelevant to the case before us, which involves an inland waterway.

[20] 43 U. S. C. § 1301 (f).

footing doctrine, the State can no more base its claim to lands unnecessary to a navigational purpose on the Submerged Lands Act than on that doctrine.

III

The question remains as to who owns the subject land under the applicable federal common law. It is, of course, clear that the State of Arizona did hold title to the subject property before the waters of the river receded. Both the State and the Solicitor General of the United States as *amicus curiae,* urge that the federal common-law doctrine of avulsion is applicable and thus that the State remains holder of title in the former riverbed. Bonelli, the only private claimant, argues that the narrowing of the river course should properly be characterized as an artificial accretion, hence that the disputed land, which had originally been lost from the Bonelli parcel to the river by erosion, should once again belong to it as the riparian owner.

Federal law recognizes the doctrine of accretion whereby the "grantee of land bounded by a body of navigable water acquires a right to any . . . gradual accretion formed along the shore." *Hughes* v. *Washington,* 389 U. S. 290, 293 (1967); accord, *Jones* v. *Johnston,* 18 How. 150, 156 (1856). When there is a gradual and imperceptible accumulation of land on a navigable riverbank, by way of alluvion or reliction, the riparian owner is the beneficiary of title to the surfaced land:

> "It is the established rule that a riparian proprietor of land bounded by a stream, the banks of which are changed by the gradual and imperceptible process of accretion or erosion, continues to hold to the stream as his boundary; if his land is increased he is not accountable for the gain, and if it is

diminished he has no recourse for the loss." *Philadelphia Co.* v. *Stimson*, 223 U. S. 605, 624 (1912).

There are a number of interrelated reasons for the application of the doctrine of accretion. First, where lands are bounded by water, it may well be regarded as the expectancy of the riparian owners that they should continue to be so bounded.[21] Second, the quality of being riparian, especially to navigable water, may be the land's "most valuable feature" and is part and parcel of the ownership of the land itself. *Hughes* v. *Washington, supra*, at 293; *Yates* v. *Milwaukee*, 10 Wall. 497, 504 (1871). Riparianness also encompasses the vested right to future alluvion, which is an "essential attribute of the original property." *County of St. Clair* v. *Lovingston*, 23 Wall. 46, 68 (1874). By requiring that the upland owner suffer the burden of erosion and by giving him the benefit of accretions, riparianness is maintained. Finally, there is a compensation theory at work. Riparian land is at the mercy of the wanderings of the river. Since a riparian owner is subject to losing land by erosion beyond his control, he should benefit from any addition to his lands by the accretions thereto which are equally beyond his control. *Ibid.* The effect of the doctrine of accretion is to give the riparian owner a " ' "fee, determinable upon the occupancy of his soil by the river," and [to afford] the State [a title] to the river bed [which is] likewise a . . . "qualified" fee, "determinable in favor of the riparians upon the abandonment of the bed by the river." ' " [22]

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[21] *E. g., Nebraska* v. *Iowa*, 143 U. S. 359, 365–366 (1892); *Hardin* v. *Jordan*, 140 U. S. 371 (1891); *Anderson-Tully Co.* v. *Tingle*, 166 F. 2d 224, 227–228 (CA5), cert. denied, 335 U. S. 816 (1948).

[22] 107 Ariz., at 472, 489 P. 2d, at 706 (Lockwood, J., dissenting), quoting, *State* v. *R. E. Janes Gravel Co.*, 175 S. W. 2d 739, 741 (Tex.

The doctrine of accretion applies to changes in the river course due to artificial as well as natural causes. *County of St. Clair* v. *Lovingston, supra,* at 64–69; *United States* v. *Claridge,* 416 F. 2d 933 (CA9 1969), cert. denied, 397 U. S. 961 (1970) (changes in the Colorado River's course, caused by the construction of Hoover Dam, are accretive). Where accretions to riparian land are caused by conditions created by strangers to the land, the upland owner remains the beneficiary thereof.[23]

But the federal law is otherwise where "a stream suddenly and perceptibly abandons its old channel." *Philadelphia Co.* v. *Stimson,* 223 U. S., at 624–625. Such an avulsive change does not affect title and the boundary established by the former river stream remains at that line, even if the result is to cut off a landowner's riparian rights. *St. Louis* v. *Rutz,* 138 U. S. 226, 245 (1891). The rationale for the doctrine of avulsion is a need to mitigate the hardship that a shift in title caused by a sudden movement of the river would cause the abutting landowners were the accretion principle to be applied. As this Court, quoting from 8 Op. Atty. Gen. 175, observed in *Nebraska* v. *Iowa,* 143 U. S. 359, 362 (1892):

> "'[When in] deserting its original bed, the river forces for itself a new channel in another direction, then the nation, through whose territory the river thus breaks its way, suffers injury by the loss of territory greater than the benefit of retaining the natural river boundary, and that boundary remains in the middle of the deserted river bed.'"

Civ. App. 1943), rev'd on other grounds *sub nom. Maufrais* v. *State,* 142 Tex. 559, 180 S. W. 2d 144 (1944).

[23] See sources collected at *Burns* v. *Forbes,* 412 F. 2d 995, 997 n. 2 (CA3 1969); cf. *Beaver* v. *United States,* 350 F. 2d 4, 11 (CA9 1965), cert. denied, 383 U. S. 937 (1966); *Esso Standard Oil Co.* v. *Jones,* 233 La. 915, 98 So. 2d 236, aff'd on rehearing, 233 La. 940, 98 So. 2d 244 (1957).

The Arizona Supreme Court held that because the rechanneling of the Colorado River was an "engineering relocation of the waters of the river by artificial means," it was, under state law, an avulsion and did not divest the State of title to the land from which the river had withdrawn. But federal law must be applied with a view toward the limited nature of the sovereign's rights in the riverbed, and an analysis of the interests of the State and Bonelli, in light of the rationales for the federal common-law doctrines of accretion and avulsion, compels the conclusion that, as between the State, as owner of the riverbed, and Bonelli, as a riparian owner, the surfacing of the subject land should be treated as accretion; hence title to the disputed land should be vested in Bonelli.

The rationale for the application of the doctrine of avulsion is not applicable to this dispute because of the limited interests of the State in the subject property. The Federal Government, which holds a paramount navigable servitude in the river,[24] determined that it was too wide and shallow to permit navigation in the area of the subject land, and that the river therefore needed to be deepened and rechanneled. The resulting changes in the river's thread actually enhanced the State's interest in the navigability of the river. The State's acquisition of the exposed land here could only be a windfall, since unnecessary to the State's purpose in holding title to the beds of the navigable streams within its borders.[25] Accordingly, the narrowing of the river and vesting of title to the surfaced land in riparian owners does not detract from the State's legitimate interest in title to

[24] See, *e. g.*, *Philadelphia Co.* v. *Stimson*, 223 U. S. 605, 633–635 (1912).

[25] See discussion, *supra*, at 321–324.

the riverbed,[26] so as to require mitigation of the accretion principle by application of the doctrine of avulsion.

The policies behind the doctrine of accretion are, however, fully applicable. That doctrine guarantees the riparian character of land by automatically granting to a riparian owner title to lands which form between his holdings and the river and thus threaten to destroy that valuable feature of his property. The riparian owner is at the mercy, not only of the natural forces which create such intervening lands, but also, because of the navigational servitude, of governmental forces which may similarly affect the riparian quality of his estate. Accordingly, where land cast up in the Federal Government's exercise of the servitude is not related to furthering the navigational or related public interests, the accretion doctrine should provide a disposition of the land as between the riparian owner and the State. See *Michaelson* v. *Silver Beach Assn.*, 342 Mass. 251, 173 N. E. 2d 273 (1961).

Similarly, riparian lands may suffer noncompensable losses or be deprived of their riparian character altogether by the State or Federal Government in the exercise of the navigational servitude. In compensation for such losses, land surfaced in the course of such governmental activity should inure to the riparian owner where not necessary to the navigational project or its purpose. In

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[26] The State may well have an interest in the river as an interstate boundary justifying application of avulsion principles to determining the location of that boundary; "[t]he emergence of . . . land . . . ought not in reason to have any controlling effect upon the location of the boundary line . . . ." *Arkansas* v. *Tennessee*, 246 U. S. 158, 175 (1918). But, since the land claimed by the State and petitioner is already limited by the interstate boundary, however determined, there is no such interest to compel application of avulsion principles to the disposition of title to the subject property.

the case before us, all of the subject land, which composed a substantial portion of Bonelli's parcel, was lost to the State by erosion to serve the public interest in the navigability of the river. Now that the land has resurfaced in the process of rechannelization, it should return to the estate of the riparian owner.[27]

"No other rule can be applied on just principles. Every proprietor whose land is thus bounded [by a navigable stream], is subject to loss, by the same means which may add to his territory: and as he is without remedy for his loss, in this way, he cannot

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[27] Under the doctrine of re-emergence, when identifiable riparian land, once lost by erosion, subsequently re-emerges as a result of perceptible change in the river course, title to the surfaced land revests in its former owner. See *Arkansas* v. *Tennessee*, 246 U. S., at 174–175; *Beaver* v. *United States*, 350 F. 2d, at 11. The re-emergence doctrine has been accepted by a number of States, *Herron* v. *Choctaw & Chickasaw Nations*, 228 F. 2d 830 (CA10 1956) (applying Oklahoma law); *State* v. *Gill*, 259 Ala. 177, 66 So. 2d 141 (1953); *Esso Standard Oil Co.* v. *Jones*, 233 La. 915, 98 So. 2d 236, aff'd on rehearing, 233 La. 940, 98 So. 2d 244 (1957); *Mulry* v. *Norton*, 100 N. Y. 424, 3 N. E. 581 (1885). Because of the limited interest of the State in the former riverbed, we have held the doctrine of avulsion inapplicable to this suit between the State and a private riparian owner, who is seeking title to surfaced land identifiable as part of his original parcel. In that sense, we have embraced the re-emergence concept.

But we need not here determine whether, in a suit between private landowners (or in which the State claims title in some capacity other than as owner of the riverbed), the differing interests of the parties might require a holding that the rechannelization should be treated as an avulsion. Nor need we determine whether, in a suit between a riparian owner and a former owner of surfaced land, the former should take the property as an accretion or the latter as a re-emergence. It is only the State's claim to title under the equal-footing doctrine which required the invocation of federal law to resolve the instant dispute.

be held accountable for his gain." *New Orleans* v. *United States*, 10 Pet. 662, 717 (1836).

Finally, recognition of the State's claim to the subject land would raise a serious constitutional issue as to whether the State's assertion of title is a taking without compensation, a question which we find unnecessary to decide on our view of the case. As MR. JUSTICE STEWART warned in *Hughes* v. *Washington*, 389 U. S., at 298 (concurring opinion):

> "Although the State in this case made no attempt to take the accreted lands by eminent domain, it achieved the same result by effecting a retroactive transformation of private into public property—without paying for the privilege of doing so. . . . [T]he Due Process Clause of the Fourteenth Amendment forbids such confiscation by a State, no less through its courts than through its legislature, and no less when a taking is unintended than when it is deliberate . . . ."

In the exercise of its navigational servitude, the State or Federal Government may decrease the value of riparian property without compensation because the property is held subject to the exercise of that servitude. The government may, without paying compensation, deprive a riparian owner of his common-law right to use flowing water, *St. Anthonys Falls Water Power Co.* v. *St. Paul Water Comm'rs*, 168 U. S. 349 (1897), or to build a wharf over the water, *Shively* v. *Bowlby*, 152 U. S. 1 (1894). We have held that the State may deprive the owner of the riparian character of his property in the exercise of its navigational servitude. *United States* v. *Rands*, 389 U. S. 121 (1967). But there is no claim here by the State that depriving Bonelli of the subject land is necessary to any navigational or related purpose. Cf. *United States* v. *River Rouge Co.*, 269 U. S. 411,

419 (1926); *Colberg, Inc.* v. *State*, 67 Cal. 2d 408, 432 P. 2d 3 (1967), cert. denied, 390 U. S. 949 (1968). Moreover, what is involved in this case is not just the diminution or elimination of riparian rights, but the State's attempt to completely divest all of Bonelli's title and interest in the subject land. See *Yates* v. *Milwaukee*, 10 Wall., at 504.

IV

We hold that title to the subject land, which was exposed by the federal rechannelization of the Colorado River, is vested in petitioner Bonelli Cattle Co. The judgment of the Supreme Court of Arizona is reversed and the case remanded for further proceedings not inconsistent with this opinion.

Reversed and remanded.

MR. JUSTICE REHNQUIST took no part in the consideration or decision of this case.

MR. JUSTICE STEWART, dissenting.

The Court in this case holds that federal common law governs the resolution of conflicting claims to the exposed bed of a navigable river between Arizona as the owner of the riverbed and a riparian landowner.[1] I

[1] The Court emphasizes the fact that it is the State that holds the title to the riverbed property. The nature of the title held by the State, however, is such that it could be conveyed to a private owner. ("[T]he settled law of this country [is] that the ownership of and dominion and sovereignty over lands covered by tide waters, or navigable [rivers], within the limits of the several States, belong to the respective States within which they are found, with the consequent right to use or dispose of any portion thereof . . . ." *Shively* v. *Bowlby*, 152 U. S. 1, 47 (1894); *Illinois Central R. Co.* v. *Illinois*, 146 U. S. 387, 435 (1892); *United States* v. *Holt Bank*, 270 U. S. 49, 54–55 (1926).) Since the State could hardly convey more title than it held, it would appear from the Court's opinion

think this ruling emasculates the equal-footing doctrine, under which this Court has long held "that the new States since admitted have the same rights, sovereignty and jurisdiction . . . as the original States possess within their respective borders." *Mumford* v. *Wardwell*, 6 Wall. 423, 436 (1867).

After the Revolution, the 13 Original States succeeded both to the Crown's title to the beds underlying navigable rivers and to its sovereignty over that property. *Id.*, at 436. "[T]he shores of navigable waters and the soils under the same in the original States were not granted by the Constitution to the United States, but were reserved to the several States." *Ibid.* If the equal-footing doctrine means what it says, then the States that were later admitted to the Union must hold the same title and must exercise the same sovereignty. *Weber* v. *Board of Harbor Comm'rs*, 18 Wall. 57, 65–66 (1873); *Shively* v. *Bowlby*, 152 U. S. 1, 16 (1894); *Pollard's Lessee* v. *Hagan*, 3 How. 212, 223 (1845). Just as with other real property within a State's boundaries, an element of sovereignty over the property constituting the riverbed is the power of the State's courts to determine and apply state property rules in the resolution of conflicting claims to that property. Today, however, the Court holds that federal common law supersedes the common-law property rules applied by Arizona pursuant to its sovereign authority over the property in question.

This Court has repeatedly recognized a State's power, as a function of its sovereignty over the lands within its borders, to apply state common-law property rules

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that federal law would also govern the resolution of conflicting claims to the exposed riverbed as between a private owner of the bed and a private riparian owner.

such as those applied by the Supreme Court of Arizona in this case:

> "Th[e] right of the States to regulate and control the shores of tide waters, and the land under them, is the same as that which is exercised by the Crown in England. In this country the same rule has been extended to our great navigable lakes . . . ; and also . . . to navigable rivers . . . ; but it depends on the law of each State to what waters and to what extent this prerogative of the State over the lands under water shall be exercised." *Hardin* v. *Jordan*, 140 U. S. 371, 382 (1891).

With respect to an avulsion exposing large portions of riverbed and leading to conflicting claims to the ownership of the exposed land, virtually the twin of this case, the Court has said:

> "How the land that emerges . . . shall be disposed of as between public and private ownership is a matter to be determined according to the law of each State, under the familiar doctrine that it is for the States to establish for themselves such rules of property as they deem expedient with respect to the navigable waters within their borders and the riparian lands adjacent to them. . . . Thus, [the State] may limit riparian ownership by the ordinary high-water mark . . . [or] may, in the case of an avulsion followed by a drying up of the old channel of the river, recognize the right of former riparian owners to be restored to that which they have lost through gradual erosions in times preceding the avulsion . . . ." *Arkansas* v. *Tennessee*, 246 U. S. 158, 175–176 (1918).

Along the same vein, the Court has said:

> "It is generally conceded that the riparian title attaches to subsequent accretions to the land effected by the gradual and imperceptible operation of natural causes. But whether it attaches to land reclaimed by artificial means from the bed of the river, or to sudden accretions produced by unusual floods, is a question which each State decides for itself. . . . The confusion of navigable with tide water, found in the monuments of the common law, long prevailed in this country . . . . [I]t laid the foundation in many States of doctrines with regard to the ownership of the soil in navigable waters above tide-water at variance with sound principles of public policy. Whether, as rules of property, it would now be safe to change these doctrines where they have been applied . . . is for the several States themselves to determine. . . . [The decision] properly belongs to the States by their inherent sovereignty . . . ." *Barney* v. *Keokuk*, 94 U. S. 324, 337–338 (1877).

To put the matter bluntly, the Court's application of the equal-footing doctrine in this case seems to me wholly wrong. While conceding that the later-admitted States have " 'the same rights, sovereignty and jurisdiction . . . as the original States possess within their respective borders,' " *ante*, at 318, the Court holds that "the nature and extent of the title to the bed of a navigable stream held by the State under the equal-footing doctrine" involves a " 'right asserted under federal law' " that must be determined under the rules of federal common law. The effect of the Court's analysis is completely to undercut the equal-footing doctrine. As noted above, the original States derived their sovereign rights

and powers directly from the Crown after the Revolution and retained whatever powers they did not later surrender or limit in the Federal Constitution. Even under the Court's "title" analysis, therefore, federal common law would not govern the conflicting claims involved here if the river were located in Massachusetts or Virginia, rather than in Arizona.

The upshot of the Court's decision is that the 13 Original States are free to develop and apply their own rules of property law for the resolution of conflicting claims to an exposed bed of a river, while those States admitted after the Constitution's ratification must under today's decision knuckle under to this Court's supervisory view of "federal common law." A later-admitted State like Arizona is thus not at all on an equal footing with the original States in the exercise of sovereignty over real property within its boundaries. And the vehicle used by the Court to arrive at this unjust result is, incredibly, the very doctrine that was intended to insure to the new States equal footing with the original States. Thus, the Court's strange application of the equal-footing doctrine brings that constitutional principle into fundamental conflict with the purpose it was intended to serve.

If the equal-footing doctrine means anything, it means that Arizona cannot be treated as a second-class State. It means that, upon admission to the Union, it received title to, and sovereignty over, the beds of navigable rivers within its boundaries, to the same extent as the original States after the Revolution. As a function of that sovereignty, Arizona courts have the power to develop and apply state common law in determining legal questions that arise with respect to this property, including conflicting claims to the bed that is later exposed by the vagaries of the river. And

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wer of the Arizona courts to decide this contro-
the po under state law surely includes the power to
versy it in a way that we here might think is wholly
decide
wrong.

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court implies, but does not hold, that the decision of the
[2] The Supreme Court might constitute a taking of the petitioner
Arizona npany's property without compensation, in violation of due
cattle co law. My conviction that this infirmity was present in the
process of the Washington Supreme Court was the reason for my
decision ncurrence in *Hughes* v. *Washington*, 389 U. S. 290, 294–298
special c*Hughes* was a case in which a state court effected a retro-
(1967). ange in state property law that resulted in an unconstitu-
active cl ing of property without compensation. That, however, is
tional ta ituation here. The Arizona Supreme Court simply applied
not the s shed property rules with regard to the effects of avulsion,
its establ erosion, and reliction in resolving conflicting claims to the
accretion iverbed. It declined the petitioners' invitation to adopt the
exposed bed" re-emergence doctrine as part of the law of Arizona.
"enlighte , therefore, does not involve a retroactive alteration of
This cas such as would constitute an unconstitutional taking of
state law roperty.
private p